

IN THE CLAIMS:

Please amend claims 2-30, 32-34, and 36-37 as follows. Please cancel claim 31 without prejudice or disclaimer. Please add claims 39-44.

1. (Previously Presented) A method, comprising:

camping, in an idle state, on a serving cell formed by a serving base station;

adjusting, in a network element of a mobile communication system, at least one element of control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information, wherein the control information controls cell change procedures of a user equipment camping in the idle state on the serving cell;

receiving, in the user equipment, the adjusted control information for controlling cell change procedures of the user equipment, said cell change being conducted from the serving cell to a target cell; and

performing, in the user equipment, the cell change procedures based on the received control information; and

controlling the cell change procedures based on said adjusted control information, wherein at least one neighbor cell is formed by a neighbor base station, and the user equipment is configured to receive signals from said serving base station and said neighbor base stations.

2. (Currently Amended) The method of claim 435, further comprising:
performing, in the user equipment, the cell change procedures based on the
received control information; and

adjusting at least one element of the idle state control information.

3. (Currently Amended) The method of claim 435, wherein performing the cell
change procedures comprises:

selecting the target cell based on the adjusted control information; and
camping on the target cell.

4. (Currently Amended) The method of claim 435, wherein performing the cell
change procedures comprises:

measuring the quality of the serving cell;
measuring the quality of at least one neighbour cell;
ranking the measured cells based on the measured quality of the serving cell and
the measured quality of the neighbour cell; and
selecting the target cell based on the ranking.

5. (Currently Amended) The method of claim 435, further comprising:
adjusting at least one quality threshold of the serving cell, and
wherein performing the cell change procedures comprises:

measuring the quality of the serving cell,
triggering measurements on the neighbour cell based on the measured quality of
the serving cell and the quality threshold of the serving cell, and
selecting the target cell based on the triggered measurements.

6. (Currently Amended) The method of claim ~~1~~35, further comprising:
camping on the serving cell that uses a different carrier frequency from that used
by the neighbour cell; and
adjusting at least one inter-frequency measurement threshold, and
wherein performing the cell change procedures comprises:
measuring the quality of the serving cell,
triggering inter-frequency measurements on the neighbour cell based on the
measured quality of the serving cell and the inter-frequency measurement threshold, and
selecting the target cell based on the inter-frequency measurement.

7. (Currently Amended) The method of claim ~~1~~35, further comprising:
camping on the serving cell that uses a different radio-access technology from that
used by the neighbour cell;
adjusting an inter-radio access technology measurement threshold, and
wherein performing the cell change procedures comprises:
measuring the quality of the serving cell,

triggering inter-radio access technology measurements on the neighbour cell based on the measured quality of the serving cell and the inter-radio access technology measurement threshold; and

selecting the target cell based on the inter-radio access technology measurement.

8. (Currently Amended) The method of claim ~~43~~35, further comprising:
adjusting at least one quality threshold of the neighbour cell, and
wherein the performing, in the user equipment, of the cell change procedures comprises,

measuring the quality of the serving cell,
triggering measurements on the neighbour cell based on the measured quality of the serving cell,

measuring the quality of the neighbour cell,
forming the candidate cell selection based on the measured quality of the neighbour cell and the quality threshold of the neighbour cell, and

selecting the target cell based on the candidate cell selection.

9. (Currently Amended) The method of claim ~~43~~35, further comprising:
adjusting at least one quality offset of the serving cell, and
wherein the performing, in the user equipment, of the cell change procedures comprises:

measuring the quality of the serving cell,
applying the quality offset of the serving cell to the measured quality of the serving cell, thus obtaining an offset-applied quality of the serving cell,
measuring the quality of at least one neighbour cell, and
selecting the target cell based on the measured quality of the neighbour cell, and the offset-applied quality of the serving cell.

10. (Currently Amended) The method of claim ~~43~~35, further comprising:
adjusting at least one quality offset of the neighbour cell, and
wherein the performing, in the user equipment, of the cell change procedures comprises:

measuring the quality of the serving cell,
measuring the quality of at least one neighbour cell,
applying the quality offset of the neighbour cell to the measured quality of the neighbour cell, thus obtaining an offset-applied quality of the neighbour cell, and
selecting the target cell based on the measured quality of the serving cell and the offset-applied quality of the neighbour cell.

11. (Currently Amended) The method of claim ~~43~~35, further comprising:
adjusting at least one temporary quality offset of the neighbour cell and a penalty time of the neighbour cell, and

wherein the performing, in the user equipment, of the cell change procedures comprises:

- measuring the quality of the serving cell,
- measuring quality of at least one neighbour cell,
- applying the quality offset of the neighbour cell to the measured quality of the neighbour cell for the duration of the penalty time, thus obtaining a temporary offset-applied quality of the neighbour cell, and
- selecting the target cell based on the measured quality of the serving cell and the temporary offset-applied quality of the neighbour cell.

12. (Currently Amended) The method of claim 135, further comprising:
adjusting at least one element of the control information to assumed capacity requirements of the mobile communication system.

13. (Currently Amended) The method of claim 135, further comprising:
adjusting at least one element of the control information based on assumed cell load of the serving cell.

14. (Currently Amended) The method of claim 135, further comprising:
camping, on the serving cell belonging to the same hierarchical cell structure as the neighbour cell;

adjusting prioritising information of hierarchical cell structure;

re-prioritising the cells in a hierarchical cell structure using the adjusted prioritising information; and

performing the cell change procedures based on the re-prioritising information.

15. (Currently Amended) The method of claim ~~13~~35, further comprising:

camping in one of the idle states specified in third generation partnership project specifications, including idle mode, a cell forward access channel-~~(CELL_FACH)~~ state, a user registration area paging channel-~~(URA_PCH)~~ state, a cell paging channel ~~(CELL_PCH)~~ state.

16. (Currently Amended) The method of claim ~~13~~35, further comprising:

camping on the serving cell controlled by a base station controller different from the base station controller controlling the neighbour cell.

17. (Currently Amended) A ~~mobile communication~~ system, comprising:

a network part configured to provide the fixed infrastructure of the mobile communication system,

the network part comprising a serving base station configured to form a serving cell, and a neighbour base station configured to form a neighbour cell;

a user equipment comprising a ~~receiving device~~ receiver configured to receive signals from the serving base station and from the neighbour base station;

the network part further comprises a ~~control device~~ controller configured to control cell change procedures with control information, said cell change being conducted from the serving cell to a target cell,

the user equipment further comprising a ~~cell change procedure device~~ changer configured to perform cell change procedures based on control information received from the network part,

wherein the ~~receiving device~~ receiver and the ~~cell change procedure device~~ changer are configured to camp on the serving cell in an idle state, and

wherein the network part further comprises an ~~adjusting device~~ adjuster configured to adjust at least one element of said control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information.

18. (Currently Amended) The ~~mobile communication system~~ apparatus of claim 1736, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one element of the idle state control information.

19. (Currently Amended) The ~~mobile communication~~ system of claim 17, wherein the ~~cell-change procedure device~~ changer is configured to select the target cell based on the adjusted control information, and

wherein the ~~receiving device~~ receiver and the ~~cell-change procedure device~~ changer are configured to camp on the target cell.

20. (Currently Amended) The ~~mobile communication~~ system of claim 17, wherein the ~~receiving device~~ receiver and the ~~cell-change procedure device~~ changer are configured to measure a quality of the serving cell based on the adjusted control information,

wherein the ~~receiving device~~ receiver and the ~~cell-change procedure device~~ changer are configured to measure a quality of at least one neighbour cell based on the adjusted control information,

wherein the ~~cell-change procedure device~~ changer is configured to rank the measured cells based on the measured quality of the serving cell, the measured quality of the neighbour cell, and the adjusted control information, and

wherein the ~~cell-change procedure device~~ changer is configured to select the target cell based on the ranking.

21. (Currently Amended) The ~~mobile communication system apparatus~~ of claim ~~1736~~, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one quality threshold of the serving cell;

~~wherein the receiving device and the cell change procedure device are configured to measure the quality of the serving cell,~~

~~wherein the cell change procedure device is configured to trigger measurements on the neighbour cell based on the measured quality of the serving cell and the quality threshold of the serving cell; and~~

~~wherein the cell change procedure device is configured to select the target cell based on the triggered measurements.~~

22. (Currently Amended) The ~~mobile communication system~~ of claim ~~1736~~, wherein the receiving device is configured to operate at different carrier frequencies;

wherein the ~~adjusting device~~ adjuster is configured to adjust at least one inter-frequency measurement threshold;

~~wherein the receiving device and the cell change procedure device are configured to perform inter-frequency measurements; and~~

~~wherein the cell change procedure device is configured to select the target cell based on the inter-frequency measurements.~~

23. (Currently Amended) ~~The mobile communication system~~ apparatus of claim 1736, wherein the ~~receiving device is configured to operate with different radio access technologies, and~~

wherein the ~~adjusting device~~ adjuster is configured to adjust at least one inter-radio access technology measurement threshold;

~~wherein the receiving device and the cell change procedure device are configured to perform inter-radio access technology measurements, and~~

~~wherein the cell change procedure device is configured to select the target cell based on the inter-radio access technology measurements.~~

24. (Currently Amended) ~~The mobile communication system~~ apparatus of claim 1736, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one quality threshold of the neighbour cell;

~~wherein the receiving device and the cell change procedure device are configured to measure quality of the serving cell,~~

~~wherein the cell change procedure device is configured to trigger measurements on the neighbour cell based on the measured quality of the serving cell,~~

~~wherein the cell change procedure device and the receiving device are configured to measure the quality of the neighbour cell.~~

~~wherein the cell change procedure device is configured to form the candidate cell selection based on the measured quality of the neighbour cell and the quality threshold of the neighbour cell, and~~

~~wherein the cell change procedure device is configured to select the target cell based on the candidate cell selection.~~

25. (Currently Amended) The ~~mobile communication system~~ apparatus of claim 1736, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one quality offset of the serving cell;

~~wherein the receiving device and the cell change procedure device are configured to measure the quality of the serving cell,~~

~~wherein the cell change procedure device is configured to apply the quality offset of the serving cell to the measured quality of the serving cell, thus producing an offset-applied quality of the serving cell,~~

~~wherein the cell change procedure device and the receiving device are configured to measure the quality of at least one neighbour cell, and~~

~~wherein the cell change procedure device is configured to select the target cell based on the measured quality of the neighbour cell, and the offset-applied quality of the serving cell.~~

26. (Currently Amended) The ~~mobile communication system~~ apparatus of claim ~~1736~~, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one quality offset of the neighbour cell;

~~wherein the receiving device and the cell change procedure device are configured to measure the quality of the serving cell,~~

~~wherein the cell change procedure device and the receiving device are configured to measure the quality of at least one neighbour cell,~~

~~wherein the cell change procedure device is configured to apply the quality offset of the neighbour cell to the measured quality of the neighbour cell, to produce an offset-applied quality of the neighbour cell, and~~

~~wherein the cell change procedure device is configured to select the target cell based on the measured quality of the serving cell, and the offset-applied quality of the neighbour cell.~~

27. (Currently Amended) The ~~mobile communication system~~ apparatus of claim ~~1736~~, wherein the ~~adjusting device~~ adjuster is configured to adjust at least one temporary quality offset of the cell and a penalty time of the neighbour cell;

~~wherein the receiving device and the cell change procedure device are configured to measure a quality of the serving cell,~~

~~wherein the cell change procedure device and the receiving device are configured to measure a quality of at least one neighbour cell,~~

~~wherein the cell change procedure device is configured to apply the quality offset of the neighbour cell for the duration of the penalty time to the measured quality of the neighbour cell, thus producing a temporary offset applied quality of the neighbour cell, and~~

~~wherein the cell change procedure device is configured to select the target cell based on the measured quality of the serving cell, and the temporary offset applied quality of the neighbour cell.~~

28. (Currently Amended) The ~~mobile communication system~~ apparatus of claim ~~1736~~, wherein the ~~adjusting device~~adjuster is configured to adjust at least one element of the control information to assumed capacity requirements of the mobile communication system.

29. (Currently Amended) The ~~mobile communication system~~ apparatus of claim ~~1736~~, wherein the ~~adjusting device~~adjuster is configured to adjust at least one element of the control information based on an assumed cell load in the serving cell.

30. (Currently Amended) The ~~mobile communication~~ system of claim ~~1736~~, wherein the ~~serving~~ base station and the ~~a~~ neighbour base station are configured to form a hierarchical cell structure such that the serving cell and the ~~a~~ neighbour cell belong to the same hierarchical cell structure,

wherein the ~~adjusting device~~adjuster is configured to adjust prioritising information, and

wherein the ~~control device~~controller is configured to re-prioritise the serving cell and the neighbour cell based on the adjusted prioritising information, and

~~wherein the cell change procedure device is configured to perform the cell change procedures based on the re-prioritising.~~

31. (Cancelled)

32. (Currently Amended) The ~~mobile communication~~ system of claim 17, wherein the network part comprises separate base station controllers for the serving base station and neighbour base station.

33. (Currently Amended) A network element of a mobile communication system, comprising: a serving base station configured to form a serving cell; a neighbour base station configured to form a neighbour cell; and a user equipment camped on the serving cell in an idle state and comprising a ~~receiving device~~ receiver configured to receive signals from the serving base station and from the neighbor base station, the user equipment further comprising a ~~cell change procedure device~~changer configured to perform cell change procedures based on control information, and a ~~control device~~ controller configured to control cell change procedures with control information, said cell

change being conducted from the serving cell to a target cell, the network element further comprising:

~~an adjusting device~~ adjuster configured to adjust at least one element of said control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information.

34. (Cancelled)

35. (Previously Presented) A method, comprising:

providing, in a network element of a mobile communication system, control information controlling cell change procedures of a user equipment camping in an idle state on a serving cell formed by a base station;

adjusting at least one element of said control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information;

transmitting the adjusted control information to the user equipment; and

controlling the cell change procedures based on the adjusted control information.

36. (Currently Amended) ~~A network element of a mobile communication system,~~
An apparatus, comprising:

~~a control unit~~ controller configured to provide control information controlling cell change procedures of a user equipment camping in an idle state on a serving cell formed by a base station; and

~~an adjusting device~~ adjuster configured to adjust at least one element of said control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information,

wherein the ~~control unit~~ controller is further configured to transmit the adjusted control information to the user equipment and control the cell change procedures based on the adjusted control information.

37. (Currently Amended) ~~A network element of a mobile communication system,~~
An apparatus, comprising:

providing means for providing control information controlling cell change procedures of a user equipment camping in an idle state on a serving cell formed by a base station;

adjusting means for adjusting at least one element of said control information according to a predetermined time pattern comprising time elements having a

characteristic profile in terms of a state of the mobile communication system, to form adjusted control information;

transmitting means for transmitting the adjusted control information to the user equipment; and

controlling means for controlling the cell change procedures based on the adjusted control information.

38. (Currently Amended) A computer-readable program distribution medium encoding a computer program of instructions being configured to control a processor to perform:

providing, in a network element of a mobile communication system, control information controlling cell change procedures of a user equipment camping in an idle state on a serving cell formed by a base station;

adjusting at least one element of said control information according to a predetermined time pattern comprising time elements having a characteristic profile in terms of a state of the mobile communication system, to form adjusted control information;

transmitting the adjusted control information to the user equipment; and

controlling the cell change procedures based on the adjusted control information.

39. (New) The apparatus according to claim 36, further comprising:

a receiver and a cell changer configured to measure a quality of the serving cell.

40. (New) The apparatus according to claim 39, wherein the cell charger is configured to select a target cell based on a triggered measurements.

41. (New) The apparatus according to claim 37, wherein the adjusting means adjusts at least one element of the idle state control information.

42. (New) The apparatus according to claim 37, wherein the adjusting means adjusts at least one quality threshold of the serving cell.

43. (New) The apparatus according to claim 38, further comprising:
adjusting at least one element of the idle state control information.

44. (New) The apparatus according to claim 38, further comprising:
adjusting at least one quality threshold of the serving cell.